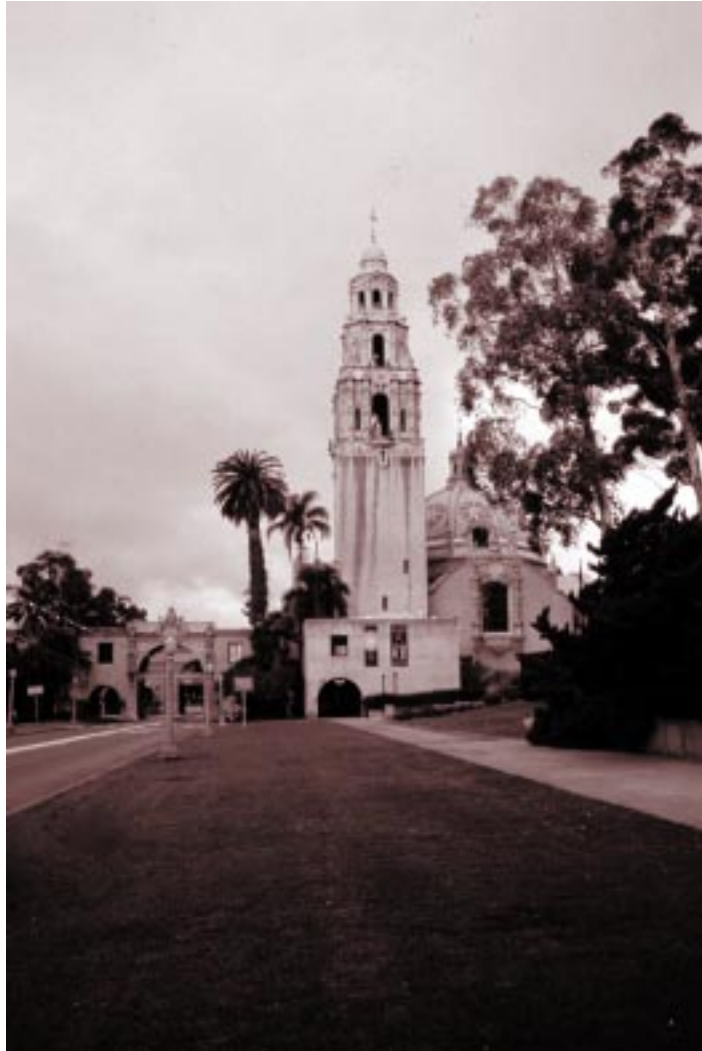


# APPENDIX



BALBOA PARK, SAN DIEGO, CALIFORNIA

**APPENDIX A**  
Letter to Project Proponents

**APPENDIX B**  
BECC Step I: Pre-Proposal  
Form

**APPENDIX C**  
NADB IDP Information Sheet

**APPENDIX D**  
Global Technology Network  
Registration Form and Codes

**APPENDIX E**  
Atlernate Financing Services

## LETTER TO PROJECT PROPONENTS





GOBIERNO DEL ESTADO  
LIBRE Y SOBERANO DE  
BAJA CALIFORNIA

**California Border Environmental Cooperation Committee**  
**Comisión de Cooperación Ecológica Fronteriza de las Californias**

June 16, 1997

**Mr. Peter M. Rooney**

CHAIR

**M.C. Adolfo Gonzalez Calvillo**

MEMBER

**Ms. Joan Milke Flores**

MEMBER

**Ing. Fernando Aceves Salmon**

MEMBER

**Julie Meier Wright**

MEMBER

**Lic. Jorge Gallego Salas**

MEMBER

**Lic. Ramon Salido Almada**

MEMBER

Dear Interested Party:

In an effort to strategically position California for maximum funding from the North American Development Bank (NADBank) and the United States Environmental Protection Agency for environmental infrastructure projects, and as the designated California Environmental Protection Agency Representative for California-Mexico issues, I would like to cordially invite you to provide input to the 1997 California-Baja California Border Environment Needs Assessment Report.

In 1995, the first report of this type was published. It addressed many infrastructure projects along with non-infrastructure environmental related projects. In order to provide the most useful report possible, the 1997 Report will focus on the three priority areas established by the Border Environment Cooperation Commission (BECC). These are: potable water supply, waste water collection, treatment and disposal and municipal solid waste. The report will be prepared jointly with our Baja California counterparts.

By providing an updated version of the California Border Environment Needs Assessment Report, California and Baja California will highlight their environmental infrastructure needs and will have the opportunity to prepare themselves in seeking construction, and technical assistance grants for infrastructure projects from the BECC and NADBank. These grants will be based on community need and will be awarded on a first come first serve basis.

I urge you to participate in this worthwhile project by providing the information outlined in the enclosed information sheet, by September 3, 1997. We would like to have a finished report ready for distribution by October 1997. Therefore, time is of the essence.

For your information, we have enclosed printed information on the BECC, the NADBank and the California Border Environmental Cooperation Committee (Cal/BECC). Additionally, the BECC Project Certification Criteria may be accessed at <http://cocef.interjuarez.com> via the Internet or can be requested by fax to:

Attn. Ricardo Martinez, (916) 227-4349.

Now, more than ever, your opportunity to identify, plan and fund your infrastructure projects is at hand. Projects included in this report will be presented by California and Baja California to federal and binational funding agencies for potential financial or technical assistance. Please send your information no later than September 3, 1997 in the format described in the enclosed information sheet to:

Ricardo Martinez, Cal/BECC Coordinator  
2014 T Street, Suite 130  
Sacramento, CA 95814

If you should require additional information, please call Mr. Ricardo Martinez, Cal/BECC coordinator, at (916) 227-4328 or Mr. Paulino Luna, Waste Management Engineer at (916) 255-3882.

Sincerely,

**James M. Stubchaer**

*Vice Chair*

State Water Resources Control Board

enclosures

## BECC STEP I PRE-PROPOSAL FORM



DESERT REGION NEAR THE IMPERIAL VALLEY

# ***Border Environment Cooperation Commission***

## **STEP I: PRE-PROPOSAL**

Date of Submittal to the BECC \_\_\_\_\_

Date of Receipt by the BECC \_\_\_\_\_

### **NAME AND TYPE OF PROJECT**

#### **1. NAME OF THE PROJECT:**

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#### **2. TYPE OF INFRASTRUCTURE:**

- |          |                      |          |                        |
|----------|----------------------|----------|------------------------|
| A. _____ | Water Supply         | C. _____ | Solid Waste Management |
| B. _____ | Wastewater Treatment | D. _____ | Other Related Projects |

### **PROJECT DESCRIPTION**

#### **3. BRIEF PROJECT DESCRIPTION:**

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### **PRIMARY APPLICANT**

#### **4. NAME OF THE ORGANIZATION:**

Name of Contact Person: _____		
Position: _____		
Address: _____		
City: _____	State: _____	Zip Code: _____
Phone No.: _____	Fax No.: _____	
E-mail Address: _____		

**CO-APPLICANT (IF APPLICABLE)****5. NAME OF THE ORGANIZATION:**

Name of Contact Person:

Position:

Address:

City:

State:

Zip Code:

Phone No.:

Fax No.:

E-mail Address:

**CONTRACTOR (IF APPLICABLE)****6. NAME OF THE FIRM:**

Name of Contact Person:

Position:

Address:

City:

State:

Zip Code:

Phone No.:

Fax No.:

E-mail Address:

**GENERAL PROJECT INFORMATION**

7. LOCATION OF PROJECT SITE:

Mexico \_\_\_\_\_

U.S.A. \_\_\_\_\_

8. NEAREST City: \_\_\_\_\_ State: \_\_\_\_\_

9. DISTANCE FROM NEAREST CITY (in miles): \_\_\_\_\_

10. NO. OF PERSONS IN NEAREST CITY: \_\_\_\_\_

11. POPULATION BENEFITED: \_\_\_\_\_

12. WITHIN BORDER REGION? (62 mi) Yes \_\_\_\_\_ No \_\_\_\_\_

IF NO: HOW DOES THE PROJECT AFFECT THE BORDER REGION?

13. TYPE OF PROJECT: Public \_\_\_\_\_ Public/private partnership \_\_\_\_\_

Private-only project designed to address local or regional needs \_\_\_\_\_

Private-only project designed to address the sponsor's pollution problems \_\_\_\_\_

14. TYPE OF PROJECT: New \_\_\_\_\_ Expansion \_\_\_\_\_ Rehabilitation \_\_\_\_\_

15. ESTIMATED USEFUL LIFETIME OF THE PROJECT: \_\_\_\_\_ years

## DESCRIPTION OF THE PROJECT

### A. IF THE PROJECT IS RELATED TO WATER SUPPLY, IT CONCERNS:

16. DEVELOPMENT OF A WATER SOURCE: Yes \_\_\_\_\_ No \_\_\_\_\_
17. WATER TREATMENT: Yes \_\_\_\_\_ No \_\_\_\_\_
18. WATER DISTRIBUTION: Yes \_\_\_\_\_ No \_\_\_\_\_
19. CONTROL OF SUPPLY IN DISTRIBUTION SYSTEM: Yes \_\_\_\_\_ No \_\_\_\_\_
20. PUMP STATIONS AND SUMPS: Yes \_\_\_\_\_ No \_\_\_\_\_
21. WATER TRANSMISSION LINES: Yes \_\_\_\_\_ No \_\_\_\_\_

22. OTHER:

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### B. IF THE PROJECT IS RELATED TO WASTEWATER TREATMENT, IT CONCERNS:

23. TYPE OF WASTEWATER : Municipal \_\_\_\_\_ Industrial \_\_\_\_\_
24. SEWER SYSTEM: Yes \_\_\_\_\_ No \_\_\_\_\_
25. COLLECTOR TRUNK LINES: Yes \_\_\_\_\_ No \_\_\_\_\_
26. WASTEWATER TREATMENT PLANTS: Yes \_\_\_\_\_ No \_\_\_\_\_
27. WATER REUSE: Yes \_\_\_\_\_ No \_\_\_\_\_
28. DISCHARGE OF TREATED WASTEWATER: Yes \_\_\_\_\_ No \_\_\_\_\_
29. TREATMENT OF WASTEWATER GENERATED SLUDGE: Yes \_\_\_\_\_ No \_\_\_\_\_
30. DISPOSAL OF WASTEWATER GENERATED SLUDGE: Yes \_\_\_\_\_ No \_\_\_\_\_

31. OTHER:

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### C. IF THE PROJECT IS RELATED TO MUNICIPAL SOLID WASTE, IT CONCERNS:

32. RECOVERY OF RECYCLABLE MATERIALS: Yes \_\_\_\_\_ No \_\_\_\_\_

33. TREATMENT OF MUNICIPAL SOLID WASTE:

Composting \_\_\_\_\_

Incineration \_\_\_\_\_

Power Generation \_\_\_\_\_

34. DISPOSAL OF MUNICIPAL SOLID WASTE:

Transfer Stations \_\_\_\_\_

Sanitary Landfill \_\_\_\_\_

35. OTHER:

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**D. IN CASE OF OTHER RELATED PROJECTS PLEASE INDICATE RELATIONSHIP:**

36. PREVENTION, CONTROL, OR REMEDIATION OF POLLUTION RELATED TO:

Water Supply

Yes \_\_\_\_\_

No \_\_\_\_\_

Treatment of Wastewater

Yes \_\_\_\_\_

No \_\_\_\_\_

Municipal Solid Waste Disposal

Yes \_\_\_\_\_

No \_\_\_\_\_

How is the Project is Related to at Least One of the Three Previously Mentioned Subjects:

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**PROJECT PLANNING INFORMATION**

THE PROJECT ALREADY HAS COMPLETED:

37. ENVIRONMENTAL ASSESSMENT:

Yes \_\_\_\_\_

No \_\_\_\_\_

38. PRELIMINARY ENGINEERING STUDY:

Yes \_\_\_\_\_

No \_\_\_\_\_

39. TECHNICAL FEASIBILITY STUDY:

Yes \_\_\_\_\_

No \_\_\_\_\_

40. FINANCIAL FEASIBILITY AND PROJECT MANAGEMENT STUDY:

Yes \_\_\_\_\_

No \_\_\_\_\_

41. PRELIMINARY DESIGN:

Yes \_\_\_\_\_

No \_\_\_\_\_

42. FINAL DESIGN:

Yes \_\_\_\_\_

No \_\_\_\_\_

43. COST ANALYSIS:

Yes \_\_\_\_\_

No \_\_\_\_\_



44. COST ESTIMATE FOR:

Final Design Development:	_____	\$U.S.
Construction of Facilities:	_____	\$U.S.
Operation & Maintenance (annual):	_____	\$U.S.
Financing Costs (annual):	_____	\$U.S.

45. ESTIMATE THE TIME REQUIRED FOR EXECUTION OF:

Planning:	_____ months	Environmental Assessments:	_____ months
Design:	_____ months	Permits	_____ months
Construction:	_____ months	Preparation of Site:	_____ months
		Plant Start-up:	_____ months

Total Time Required: \_\_\_\_\_ months

46. HAVE POTENTIAL SOURCES OF FINANCING BEEN IDENTIFIED? Yes \_\_\_\_\_ No \_\_\_\_\_

Indicate Which and the Percentage that may be Contributed by Each:

_____ MUNICIPAL	_____ %	_____ STATE	_____ %
_____ FEDERAL	_____ %	_____ NADBANK	_____ %
_____ WORLD BANK	_____ %	_____ PRIVATE BANK	_____ %
_____ NON-GOVERNMENTAL		_____ INTERAMERICAN ORGANIZATIONS	_____ %
DEVELOPMENT BANK	_____ %	_____ EQUITY	_____ %
		_____ OTHER	_____ %

47. WHAT WILL BE THE SOURCE OF REVENUE FOR REPAYMENT OF THE LOANS? (mark all that apply):

a) _____ Government	b) _____ Serviced Users	c) _____ Industrial Clients
d) _____ Other	e) _____ In Process of Identification	

48. PUBLIC MEETINGS HAVE BEEN HELD IN THE COMMUNITY: Yes \_\_\_\_\_ No \_\_\_\_\_

49. PUBLIC PARTICIPATION PLAN HAS BEEN DEVELOPED: Yes \_\_\_\_\_ No \_\_\_\_\_

50. WILL THE APPLICANT REQUEST RECOGNITION FOR HIGH SUSTAINABILITY FOR THIS PROJECT? Yes \_\_\_\_\_ No \_\_\_\_\_

## TECHNICAL ASSISTANCE

51. TO REQUEST TECHNICAL ASSISTANCE, IDENTIFY THE AREAS AND THE APPROXIMATE FUNDING NEEDED. (A Technical Assistance Manual is currently under development. Additional information may be required of the applicant):

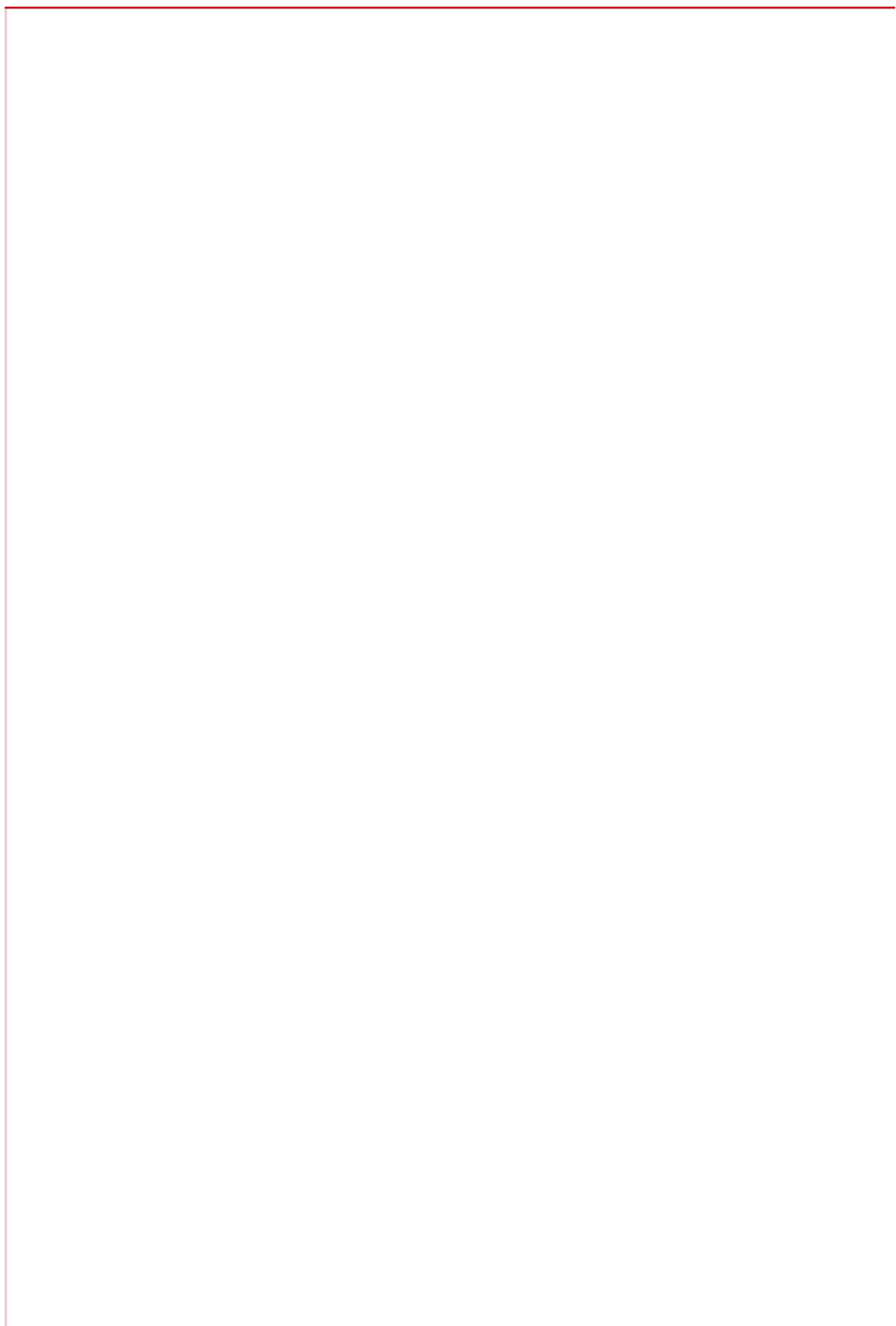
### A. CONCEPT DEVELOPMENT:

- |    |       |  |          |
|----|-------|--|----------|
| a) | _____ | Water/Wastewater Master Plan                     | \$ _____ |
| b) | _____ | Project Definition/Identification of Issues      | \$ _____ |
| c) | _____ | Analysis of Alternatives & Cost Comparison       | \$ _____ |
| d) | _____ | Planning   | \$ _____ |
| e) | _____ | Preliminary Environmental Assessment of the Site | \$ _____ |
| f) | _____ | Preliminary Technical Feasibility                | \$ _____ |
| g) | _____ | Preliminary Financial Feasibility                | \$ _____ |
| h) | _____ | Other  | \$ _____ |

### B. ADVANCE FUNDING:

- |    |       |  |          |
|----|-------|--|----------|
| a) | _____ | Environmental Assessment                                   | \$ _____ |
| b) | _____ | Technical Feasibility Study                                | \$ _____ |
| c) | _____ | Development of Preliminary Engineering Design              | \$ _____ |
| d) | _____ | Development of Final Engineering Design                    | \$ _____ |
| e) | _____ | Development of Operation & Maintenance Plan                | \$ _____ |
| f) | _____ | Preparation of Financial Statements                        | \$ _____ |
| g) | _____ | Financial Feasibility Study                                | \$ _____ |
| h) | _____ | Development of Rate Schedule                               | \$ _____ |
| i) | _____ | Analysis of City Operated vs. Concession of Services       | \$ _____ |
| j) | _____ | Study of Institutional Capacity Building                   | \$ _____ |
| k) | _____ | Evaluation of Social Issues                                | \$ _____ |
| l) | _____ | Development of Water Conservation Plan                     | \$ _____ |
| m) | _____ | Development of Waste Reduction, Reuse, &/or Recycling Plan | \$ _____ |
| n) | _____ | Evaluation of Sustainability Parameters                    | \$ _____ |
| o) | _____ | Implementation of Community Participation Plan             | \$ _____ |
| p) | _____ | Other (specify) _____                                      | \$ _____ |

<b>TOTAL AMOUNT</b>	<b>\$ _____</b>
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## NADBANK INSTITUTIONAL DEVELOPMENT COOPERATION PROGRAM INFORMATION SHEET



# NORTH AMERICAN DEVELOPMENT BANK

## INSTITUTIONAL DEVELOPMENT COOPERATION PROGRAM

### INFORMATION SHEET

Name of the utility: \_\_\_\_\_

Representative: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_

State: \_\_\_\_\_ Country: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

Indicate one of the following categories in which the utility should be included.

The utility has:

- ☐ a BECC-certified project and needs institutional strengthening to facilitate financing; or
- ☐ submitted a Step I certification application to BECC and needs institutional strengthening to facilitate certification and financing; or
- ☐ preliminary projects targeted at small, low-income communities and needs institutional strengthening; or
- ☐ a need for assistance in strengthening their institutional capacities, but do not have a specific project; or
- ☐ a need for institutional strengthening in order to enhance privatization efforts.

Briefly describe how the utility fits in the category checked above:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Describe the type of assistance requested:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Estimated cost of assistance: \_\_\_\_\_

## GTN REGISTRATION FORM AND CODES



TIJUANA RIVER ESTUARY

**GTN**

## Global Technology Network Environmental & Energy Technology Opportunities for U.S. Businesses - Register Now

The Economic Growth Center's Office of Business Development introduces the Global Technology Network (GTN). This service focuses on identifying targeted international business opportunities in health, energy and environment, agribusiness, communications and information technologies.

GTN assists U.S. businesses in gaining access to Latin American, Asian, African and other international environmental markets by providing current trade and business leads, and important market

information through the **Environmental Technology Network for Asia and the Americas (ETNA)** and the **U.S.-Africa Technology Network (U.S.-ATN)**.

In partnership with in-country technical representatives, the U.S. Department of Commerce, and other professional groups, GTN works to gather the most current business information concerning infrastructure projects, wastewater treatment systems, and other developments which will have a positive impact on the environment.

The investment opportunities/trade leads are electronically matched with U.S. firms registered in our databases. Trade lead information is then faxed to the appropriate U.S. companies.

Companies must register with **GTN/ETNA** to receive **environmental technology opportunity notices**.  
Fill out the registration form and fax it to  
(202) 663-2670.

### GTN ENVIRONMENTAL TECHNOLOGY REGISTRATION FORM

**\*\* Please attach a 200 word company description and/or a brochure\*\***

Company:	Contact Name and Title:		
Street Address, City, State, Zip:			
Tel:	Fax:	Email:	
		Internet Access:	Yes      No
<b>Type of Company:</b>	University / Non Governmental Organization / Other Nonprofit:		
<b>(circle)</b>	Manufacturing / Financial / Marketing / Trade / Consulting / Other:		
<b>Number of Employees:</b>	<b>Year Established:</b>	<b>Annual Revenues:</b>	
<b>Regions of Interest (circle):</b>			
Asia/Near East	Sub-Saharan Africa	Latin America/Caribbean	New Independent States      Central & Eastern Europe
Is your company seeking agents/distributors?		Yes	No
Does your company have international experience?		Yes	No
Would your company want to team with others on large projects?		Yes	No
Has your company ever done business with USAID?		Yes	No

#### SPECIFY UP TO 20 ENVIRONMENTAL TECHNOLOGY CODES


## FAX TO (202) 663-2670 OR MAIL TO:

Global Technology Network • G/EG/GTN Room 100, SA-2 • Washington, D.C. 20523-0229

# About the Codes

The registration form allows you to specify up to 20 codes from the taxonomy listing. The coding system was developed to follow nine basic areas in environmental technology.

ETNA currently has over 2,000 U.S. environmental firms registered in the GTN database. These classification codes cover over 500 different sub-sectors within the environment and energy fields.

GTN provides USAID missions, and African, Asian and Latin American public and private sector organizations access to a database that is able to match U.S. technology with a specific developing country's environmental requirement.

The following is a breakdown of the types of Finns in the GTN database by major environmental sectors:

- Water Pollution Equipment
- Environmental Management
- Solid Waste Equipment
- Water Pollution Management
- Solid Waste Management
- Air Pollution
- Pollution Prevention/Clean Tech.
- Air Pollution Management
- Energy

<b>A</b>	<b>AIR POLLUTION</b>				
<b>AM</b>	<b>Management Services</b>				
AM01.00	Air Control Regulations & Policy Development	AA05.00	<u>Specialty Gases</u>	AT04.03	Solvent Concentration (Adsorption)
AM02.00	Air Permitting	AA05.01	Calibration Gases	AT04.04	Thermal Oxidation
AM03.00	Air Pollution Management Training	AA05.02	Gas Generation Equipment	<u>AT05.00</u>	<u>Combustible Gas Controls</u>
AM04.00	Air Pollution Modeling	AA06.00	Other (please specify)	AT05.01	Flares
AM05.00	Asbestos Abatement	<b>AC</b>	<b>Collection Systems</b>	<u>AT06.00</u>	<u>Particulate Controls</u>
AM06.00	Emissions Monitoring/Characterization	AC01.00	Active Collection Systems-Landfills (Extraction Wells)	AT06.01	Electrostatic Precipitators
AM07.00	Emissions Trading	AC02.00	Passive Gas Collection-Landfills (Vents)	AT06.02	Fabric Filters (Baghouses)
AM08.00	Facility Pollution Management	AC03.00	Other (please specify)	AT06.03	Mechanical Collectors/Cyclones
AM09.00	Indoor Air Pollution Analysis	<b>AT</b>	<b>Treatment Systems</b>	AT06.04	Venturi Scrubbers
AM10.00	Indoor Air Pollution Control	<u>AT01.00</u>	<u>Acid Gas/SOx Controls</u>	<u>AT07.00</u>	<u>Fume/Mist/Ambient Air Controls</u>
AM11.00	Laboratory Services	AT01.01	Dry Reagent Injection	AT07.01	CFC Replacement Control Systems
AM12.00	Noise Analysis & Abatement	AT01.02	Spray Drying Flue Gas Desulfurization	AT07.02	Air Duct Cleaning
AM13.00	Radon Assessment Measures & Control	AT01.03	Wet Flue Gas Desulfurization	AT07.03	Fume Hoods/Spray Booths
AM14.00	Monitoring/Testing for Clean Room Facilities	<u>AT02.00</u>	<u>NOx Controls</u>	AT07.04	Indoor Air Filter Systems
AM15.00	Clean Room Design/Build (Facilities above Class 10)	AT02.01	Flue Gas Recirculation	AT07.05	Mist Collectors
AM16.00	Clean Room Design/Build (Facilities Class 10 & below)	AT02.02	Low-NOx Burners	AT07.06	Odor Control Chemicals
AM17.00	Other (please specify)	AT02.03	Non-Selective Catalytic Reduction	AT07.07	Odor Control Equipment (Scrubbers)
<b>AA</b>	<b>Analytical/Monitoring Instruments</b>	AT02.04	Selective Catalytic Reduction	AT07.08	Wet Scrubbers
AA01.00	Analyzers	AT02.05	Selective Non-Catalytic Reduction	<u>AT08.00</u>	<u>Mobile Source Controls</u>
AA02.00	Detectors (Gas)	<u>AT03.00</u>	<u>Combined SOx NOx Controls</u>	AT08.01	Alternative Fuel Vehicles
AA03.00	Monitors	AT03.01	In-Furnace	AT08.02	Catalytic Converters
AA04.00	Samplers	AT03.02	Post-Combustion	AT08.03	Diesel Particulate Filter Controls
		AT03.03	Slagging Combusters	AT08.04	Electric Vehicles
		<u>AT04.00</u>	<u>VOC Controls</u>	AT08.05	Evaporative Emission Controls
		AT04.01	Biofiltration	AT08.06	Fuel Additives
		AT04.02	Catalytic Oxidation	AT08.07	Vehicle Emission Monitoring
				AT09.00	Emergency Release Controls & Containment
				AT 10.00	Noise Abatement Equipment
				<u>AT 10.00</u>	<u>Clean Room Products</u>



## GTN - Environmental Technology Codes

AT11.01	Garments/Accessories/Supplies	SC01.06	Native Soil	SH03.07	Railroads
AT11.02	Ultrapure Air Filters - HEPA/ULPA	SC01.07	Sprayed Asphalt	SH03.08	Transfer Station Systems & Equipment
AT12.00	Other (please specify)	SC01.08	Synthetic Membranes	SH03.09	Trucks
<b>S</b>	<b>SOIL/SOLID WASTE POLLUTION</b>	SC02.00	<u>Vertical Barriers</u>	SH03.10	Health & Safety Equipment
		SC02.01	Cement-Bentonite Slurry Wall	SH03.11	Street Cleaning Equipment/Vehicles
		SC02.02	Ground Freezing		
		SC02.03	Grout Curtains	SH04.00	Other (please specify)
		SC02.04	Injection-Permeability Agent	<b>ST</b>	<b>Treatment Systems</b>
<b>SM</b>	<b>Management Services</b>	SC02.05	Sheet Piling	<u>ST01.00</u>	<u>Spill/Hazardous Waste Remediation</u>
SM01.00	Combustion/Incineration Systems Design	SC02.06	Soils Slurry Wall	ST01.01	Bioremediation Products
SM02.00	Contaminated Site Cleanup	SC02.07	Vibrating Beam	ST01.02	Sorbents/Polymers
SM03.00	Emergency Response Services	SC03.00	<u>Horizontal Barriers</u>	ST01.03	Other Products & Equipment
SM04.00	Hazardous Waste Management	SC03.01	Ground Freezing	<u>ST02.00</u>	<u>In-Situ Soil Treatment Technologies</u>
SM05.00	Hospital/Pathological Waste Management	SC03.02	Grout Injection	ST02.01	Bioremediation
SM06.00	Industrial Waste Recycling/Recovery	SC03.03	Injection-Permeability Agent	ST02.02	Bioventing
SM07.00	Laboratory Services	SC04.00	<u>Surface Controls</u>	ST02.03	Solidification/Stabilization
SM08.00	Landfill Design/Management	SC04.01	Daily Cover	ST02.04	Soil Flushing
SM09.00	Municipal Refuse Management	SC04.02	Dikes & Berms	ST02.05	Soil Vapor Extraction (SVE)
SM10.00	On-site Construction Services	SC04.03	Diversion of Collection Systems	ST02.06	Vitrification
SM11.00	Post Consumer Product Recycling	SC04.04	Dust Controls	<u>ST03.00</u>	<u>Ex-Situ Treatment Technologies</u>
SM12.00	Site Inspection	SC04.05	Grading	ST03.01	Air Stripping
SM13.00	Solid Waste Management Training	SC04.06	Revegetation	ST03.02	Chemical Leaching/Metals Extraction
SM14.00	Solid Waste Regulations & Policy Development	SC04.07	Sediment Controls	ST03.03	Dechlorination
SM15.00	Testing--Toxic Substances	SC04.08	Soil Stabilization	ST03.04	Neutralization
SM16.00	Waste-to-Energy Plant Design	SC04.09	Surface Seals	ST03.05	Other Chemical Modification
SM17.00	Other (please specify)	SC05.00	Other (please specify)	ST03.06	Oxidation
<b>SA</b>	<b>Analytical/Monitoring Instruments</b>	<b>SH</b>	<b>Handling/Control Systems</b>	ST03.07	Reduction
		<u>SH01.00</u>	<u>Field Services</u>	ST03.08	Soil Washing
SA01.00	Toxicology (GC/MS)	SH01.01	Drum & Debris Removal	ST03.09	Solvent Extraction
SA02.00	UST/AST Leak Detectors	SH01.02	Excavation of Soils/Solids	ST03.10	UV/Photolysis
SA03.00	Other (please specify)	SH01.03	Excavation of Semi-Solids (Non-Pumpable)	ST03.11	Bioremediation
		SH01.04	Materials Handling Equipment	ST03.12	Thermal Desorption
		SH01.05	Heavy Equipment	<u>ST04.00</u>	<u>Solidification, Fixation &amp; Stabilization</u>
		SH02.00	Solids Processing	ST04.01	Lime-Flyash
		SH02.01	Baling/Compacting	ST04.02	Portland Cement
		SH02.02	Classification/Sorting	ST05.00	Sorption
		SH02.03	Crushing/Grinding/Shredding	ST05.01	Alumina
		SH02.04	Drying	ST05.02	Carbon
		SH02.05	Magnetic Processes	ST05.03	Flyash
		SH02.06	Restaurant/Food Waste Grinding & Pulping	ST05.04	Kiln Dust
<b>SC</b>	<b>Containment Technologies</b>	SH02.07	Screening	ST05.05	Lime
<u>SC01.00</u>	<u>Capping &amp; Lining</u>	<u>SH03.00</u>	<u>Transportation &amp; Storage</u>	ST05.06	Zeolites
SC01.01	Asphalting Concrete	SH03.01	Barges	<u>ST06.00</u>	<u>Encapsulation</u>
SC01.02	Chemical Sealants/Stabilizers	SH03.02	Bins	ST06.01	Asphalt
SC01.03	Clay	SH03.03	Bulk Tanks	ST06.02	Proprietary Agents
SC01.04	Concrete	SH03.04	Drums	ST06.03	Thermoplastics
SC01.05	Multi-Layered Cap	SH03.05	Emergency Response		
		SH03.06	Fabric Bags		

## GTN - Environmental Technology Codes

ST07.00	<u>Landfilling</u>	<b>W</b>	<b>WATER &amp; WASTEWATER POLLUTION</b>	WC01.04	Well Points
ST07.01	Hazardous Waste			WC01.05	Groundwater Pump & Treatment Systems
ST07.02	Medical Waste				
ST07.03	Municipal & Non-Hazardous	<b>WM</b>	<b>Management Services</b>	WC01.06	Landfill Leachate Collection Treatment Systems
ST08.00	Composting Techniques	WM01.00	Aquaculture Wastewater Management	WC01.07	In-Situ Groundwater Treatment
ST09.00	Landfarming Techniques			<u>WC02.00</u>	<u>Bulk Liquid Handling</u>
ST10.00	<u>Thermal Technologies/Industrial Waste</u>	WM02.00	Coastal Resource Protection & Planning	WC02.01	Gravity/Siphon
ST10.01	Cement Kilns	WM03.00	Ecological Restoration of Streams & Wetlands	WC02.02	Industrial Vacuum
ST10.02	Liquid Injection Incinerators			WC02.03	Irrigation Equipment
ST10.03	Rotary Kiln Incinerators	WM04.00	Effluent Sampling/Monitoring Services	WC02.04	Pumps
ST11.00	<u>Thermal Technologies/Municipal-Hospital Waste</u>	WM05.00	Emergency Response Planning/Services	WC02.05	Weirs
ST11.01	Fluidized Bed Combusters			<u>WC03.00</u>	<u>Liquid Storage</u>
ST11.02	Mass Burn Incinerators	WM06.00	Groundwater Sampling/Monitoring Services	WC03.01	Aboveground Tanks
ST11.03	Modular-Type Incinerators			WC03.02	Bulk Tanks
ST11.04	Multiple Hearth Incinerators	WM07.00	Laboratory Services	WC03.03	Drums
ST11.05	Pyrolysis/Controlled Air Combustion Incinerators	WM08.00	Lake & Marine Management	WC03.04	Secondary Containment
		WM09.00	Toxicology Studies	WC03.05	Underground Tanks
ST11.06	Refuse-Derived Fuel	WM10.00	Water Pollution Management Training	<u>WC04.00</u>	<u>Transportation</u>
ST11.07	Ship Based Incineration			WC04.01	Tanker Truck
ST11.08	Microwaving	WM11.00	Water Regulations & Policy Development	WC04.02	Railroad
ST11.09	Autoclaving			WC04.03	Pipeline
ST11.10	Waste-to-Energy Technology	<u>WM12.00</u>	<u>Potable Water Systems</u>	<u>WC05.00</u>	<u>Sewer Systems</u>
ST12.00	<u>Bioreclamation</u>	WM12.01	Water Purification Plant Design/Construction	WC05.01	Sewer System Construction
ST12.01	Bacteria Augmentation			WC05.02	Sewer Cleaning & Tunneling
ST12.02	Natural	WM12.02	Water Distribution Systems Design/Construction	WC05.03	Portable Sanitary Products/Collection
ST13.00	<u>Recycling Technologies</u>	<u>WM13.00</u>	<u>Wastewater Systems</u>	WC06.00	Other (please specify)
ST13.01	Aluminum			<b>WT</b>	<b>Treatment Systems</b>
ST13.02	Collection/Sorting/ Processing Equipment	WM13.01	Wastewater Treatment Plant Design/Construction	<u>WT01.00</u>	<u>Water Purification (Potable &amp; Industrial)</u>
ST13.03	Discarded Electronics/ Appliances	WM13.02	Wastewater Collection Systems Design/Construction	WT01.01	Activated Carbon Filters
ST13.04	Glass	WM14.00	Stormwater Management	WT01.02	Chemical Coagulation/ (Flocculation Color-Turbidity)
ST13.05	Lead Battery	WM15.00	Hydrology Services		
ST13.06	Iron, Steel, Metals	WM16.00	Other (please specify)	WT01.03	Continuous De-Ionization
ST13.07	Paper			WT01.04	Desalination
ST13.08	Plastic	<b>WA</b>	<b>Analytical/Monitoring Instruments</b>	WT01.05	Distillation
ST13.09	Products from Recycled Materials	WA01.00	Analyzers	WT01.06	Electrodialysis
		WA02.00	Flowmeters	WT01.07	Ion-Exchange
ST13.10	Rubber/Tires	WA03.00	Samplers	WT01.08	Multi-Media Filters
ST13.11	Construction/Demolition Debris	WA04.00	Water Quality Monitors	WT01.09	Other Filtration Methods
		WA05.00	pH Meters	WT01.10	Reverse Osmosis
ST14.00	<u>Recycled Waste Brokers</u>	WA06.00	Conductivity Meters	WT01.11	Sand/Coarse Media Filters
ST14.01	Aluminum	WA07.00	Marine Spill Detection Monitoring Equipment	WT01.12	Ultra-Filtration (for Manufacturing Processes)
ST14.02	Paper			WT01.13	Water Conditioning
ST14.03	Plastic	WA08.00	Other (please specify)	<u>WT02.00</u>	<u>Innovative Wastewater Treatment Systems</u>
ST14.04	Steel			WT02.01	Integrated Pond Systems
ST14.05	Nonferrous Materials	<b>WC</b>	<b>Collection/Control Systems</b>	WT02.02	Package Treatment
ST14.06	Reagents (Solvents, Acids)	<u>WC01.00</u>	<u>Groundwater Collection/ Extraction</u>		
ST14.07	Recycled Oil				
ST15.00	Other (please specify)	WC01.01	Ejector Jet Pumps		
		WC01.02	French Drains		
		WC01.03	Pipe & Media Drains		

## GTN - Environmental Technology Codes

WT02.03	Sequential Batch Reactors (Single Tank)	WT11.01	Air Stripping	EM01.16	TQM/TQEM
<u>WT03.00</u>	<u>Wastewater Treatment</u>	WT11.02	Chlorine Oxidation	EM01.17	Software Development
WT03.01	Air/Gas Flotation-Induced, Dissolved, Electrolytic	WT11.03	Electrochemical	<u>EM02.00</u>	<u>ISO 14000</u>
WT03.02	Comminutors	WT11.04	Ion Exchange	EM02.01	Auditing
WT03.03	Grit Chambers	WT11.05	Irradiation	EM02.02	Certification
WT03.04	Oil-Grease/Water Separation (Skimmers)	WT11.06	Metals Treatment	EM02.03	Management Systems Design
WT03.05	Screens/Bar Racks	WT11.07	Neutralization (pH)	EM02.04	Training
WT03.06	Sedimentation Tanks	WT11.08	Other Chemical Treatment	<u>EM03.00</u>	<u>ISO 9000</u>
WT03.07	Mechanical Flocculators	WT11.09	Photolysis	EM03.01	Auditing
<u>WT04.00</u>	<u>Wastewater Treatment-Secondary (Biological Treatment)</u>	WT11.10	Precipitation	EM03.02	Certification
WT04.01	Aerators	WT11.11	Reducing Agents	EM03.03	Life Cycle Assessments
WT04.02	Activated Sludge Processes	WT11.12	Steam Stripping	EM03.04	Training
WT04.03	Rotating Biological Contractors	WT11.13	Wet Air Oxidation		
WT04.04	Secondary Clarifiers	<u>WT12.00</u>	<u>Liquid Waste &amp; Wastewater Recycling</u>	<b>EE</b>	<b>Energy Efficient Systems &amp; Eco-Products</b>
WT04.05	Trickling Filters	WT12.01	Acid Waste Regeneration	<u>EM01.00</u>	<u>HVAC/Refrigeration</u>
<u>WT05.00</u>	<u>Wastewater Treatment-Disinfection</u>	WT12.02	Electrowinning	EM01.01	Air Conditioners/Heat Pumps/Dehumidifiers
WT05.01	Chlorination	WT 12.03	Solvent Recovery	EM01.02	Boilers/Heating Systems
WT05.02	Ozonation	WT12.04	Used Oil Recycling	EM01.03	Chillers/Thermal Energy Storage Systems
WT05.03	UV Disinfection	<u>WT13.00</u>	<u>Marine Spill Control</u>	EM01.04	Compressors/Blowers/Fans
<u>WT06.00</u>	<u>Wastewater Treatment-Tertiary (Advanced)</u>	WT13.01	Bioremediation Products	EM01.05	Efficient Wood/Kerosene/Gas/Solar Stoves
WT06.01	Activated Carbon Filters	WT13.02	Containment Booms	EM01.06	Refrigeration Systems/Freezers/Ice Makers
WT06.02	Biological Treatment	WT13.03	Oil Recovery Barges	EM01.07	Space Heaters
WT06.03	Chemical Treatment	WT13.04	Oil Skimmers	EM01.08	Timers/Sensors/Controls
WT06.04	Multi-Media Filters	WT13.05	Sorbents/Polymers	EM01.09	Water Heaters
WT06.05	Nitrogen Removal	WT14.00	Other (please specify)	EM01.10	Clean Room HVAC Systems
WT06.06	Phosphorous Removal	<b>E</b>	<b>ENVIRONMENTAL MANAGEMENT &amp; ENERGY SYSTEMS</b>	<u>EM02.00</u>	<u>Process Controls</u>
WT06.07	Polishing Ponds (Constructed Wetlands)	<b>EM</b>	<b>Environmental Management</b>	EM02.01	Electrical Metering Equipment
<u>WT07.00</u>	<u>Wastewater Sludge-Treatment/Management</u>	<u>EM01.00</u>	<u>Environmental Management</u>	EM02.02	Energy Management Systems
WT07.01	Sludge Pumps	EM01.01	Consulting & Engineering	EM02.03	Gas Metering Equipment
<u>WT08.00</u>	<u>Sludge Stabilization</u>	EM01.02	Ecosystem Assessments	EM02.04	Other Process Controls
WT08.01	Aerobic/Anaerobic Digesters	EM01.03	Ecotourism	<u>EM03.00</u>	<u>Industrial Power</u>
<u>WT09.00</u>	<u>Sludge Dewatering</u>	EM01.04	Emergency Response Services (Fire, Explosion)	EM03.01	Efficient Boiler Technologies
WT09.01	Belt Filter Presses	EM01.05	Engineering/Construction	EM03.02	Process Heat Recovery
WT09.02	Centrifuges	EM01.06	Environmental Compliance	EM03.03	Cogeneration
WT09.03	Dewatering & Drying Beds	EM01.07	Environmental Impact/Risk Assessment	<u>EM04.00</u>	<u>Insulation &amp; Building Materials</u>
WT09.04	Gravity Thickening (Thickeners)	EM01.08	Environmental Policy Development	EM04.01	Corrosion Protection
WT09.05	Pressure Filters	EM01.09	Environmental Training	EM04.02	Insulation
WT09.06	Thermal Dryers	EM01.10	GIS & GPS Systems	EM04.03	Other Energy-Efficient Building Materials
WT09.07	Vacuum Filtration	EM01.11	Health & Safety Policy & Procedures	EM04.04	Recycled Building Materials
<u>WT10.00</u>	<u>Sludge Disposal</u>	EM01.12	Permitting/Licensing	EM04.05	Sealants
WT10.01	Land Application	EM01.13	Construction Site/Project Management	EM04.06	Clean Room Building Materials
WT10.02	Landfill	EM01.14	Project Financing		
<u>WT11.00</u>	<u>Liquid Waste Treatment</u>	EM01.15	Toxicological Assessments		

## GTN - Environmental Technology Codes

<u>EE05.00</u>	<u>Lighting</u>
EE05.01	Commercial Fixtures
EE05.02	Fluorescent Lamps/CFLs
EE05.03	Electronic Ballasts
EE05.04	Controls/Timers/Sensors
EE05.05	High-Intensity Discharge Lamps
EE05.06	Outdoor/Industrial Fixtures
EE05.07	Photovoltaic-Assisted
EE05.08	Residential Fixtures
<u>EE06.00</u>	<u>Motors &amp; Motor-Driven Equipment</u>
EE06.01	Electronic Adjustable Speed Drives (ASDs)
EE06.02	Fractional Horsepower (<1hp) Motors
EE06.03	Integral Horsepower (>1hp) Motors
<u>EE07.00</u>	<u>Office Equipment</u>
EE07.01	Computers
EE07.02	Other Equipment
<u>EE08.00</u>	<u>Window Systems/Glazing</u>
EE08.01	Adhesives, Films, Coatings & Glazings
EE08.02	Coated/Low-Emissivity Flat Glass
EE08.03	Low-Emissivity Units/ Sashes
<u>EE09.00</u>	<u>Eco-Products</u>
EE09.01	Environmentally Friendly Products-Consumer/Retail
EE09.02	Environmentally Friendly Products-Commercial/Industrial
EE10.00	Other (please specify)

### **R RENEWABLE TECHNOLOGIES**

#### **RE Renewable Energy Technologies**

<u>RE01.01</u>	<u>Biomass Conversion</u>
RE01.02	Combustion
RE01.03	Gasification
RE01.04	Landfill Gas Systems
RE01.05	Anaerobic Digestion
RE01.06	Fermentation
<u>RE02.01</u>	<u>Geothermal</u>
RE02.02	Power Generation
RE02.03	Direct Heat Applications
RE02.04	Heat Pumps
<u>RE03.01</u>	<u>Fuel Additives</u>
<u>RE04.01</u>	<u>Fuel Cells</u>

<u>RE05.01</u>	<u>Hydroelectric</u>
RE05.02	Micro scale (<250 kW)
RE05.03	Small scale (< 10 MW)
RE05.04	Large scale (> 10 MW)
<u>RE06.01</u>	<u>Hydrogen</u>
<u>RE07.01</u>	<u>Solar</u>
RE07.02	Photovoltaic Cells/Panels
RE07.03	Photovoltaic Power Generation
RE07.04	Parabolic Troughs, Dishes & Receivers
RE07.05	Solar Collection Panels

RE07.06	Passive Heating Materials
RE07.07	Solar Water Heating
RE07.08	Climate-Sensitive Architecture & Design/Daylighting
<u>RE08.01</u>	<u>Ocean/Tidal/Wave Power</u>
RE08.02	Tidal/Wave Power Systems
RE08.03	Ocean Thermal Power
<u>RE09.01</u>	<u>Wind Power</u>
RE09.02	Power Generation Turbines
RE09.03	Water Pumping Systems

### **P POLLUTION PREVENTION**

If you are registering a company that specializes in pollution prevention technologies, you must select not only an industry category, but also all applicable subcategories.

For example, a clean technology firm that manufactures water-based paint would select PP10.08 because it specializes in material substitution. If this company is interested in receiving general trade leads for the painting & coating industry category, it would also select PP10.00.

<b>PP</b>	<b>Pollution Prevention Industry Categories:</b>	<b>PP</b>	<b>Pollution Prevention Sub-categories:</b>
P01. __	Automotive	___.00	Clean Technology Pollution Prevention Development
PP02. __	Cement	___.01	Inventory Control
PP03. __	Chemicals	___.02	Cost Analysis/Life Cycle Analysis
PP04. __	Electronics	___.03	Housekeeping/Operating Practices
PP05. __	Food and Beverage	___.04	Recycling/Re-use Technologies
PP06. __	Hospital	___.05	Process/Product Design (New facilities)
PP07. __	Iron & Steel	___.06	Process Modification (Existing facilities)
PP08. __	Lumber & Wood	___.07	Equipment Retrofication
PP09. __	Metal Finishing & Electroplating	___.08	Material Substitution
PP10. __	Painting & Coating		
PP11. __	Palm Oil Plantations & Refineries		
PP12. __	Pesticides		
PP13. __	Petroleum Refining		
PP14. __	Pharmaceuticals		
PP15. __	Plastics		
PP16. __	Pulp & Paper		
PP17. __	Rubber		
PP18. __	Semiconductors		
PP19. __	Sugar		
PP20. __	Tanneries		
PP21. __	Textiles		
PP22. __	Agro-Crop		
PP23. __	Agro-Livestock		
PP24. __	Other (please specify)		

## ALTERNATE FINANCING SOURCES



# ARGENTA CAPITAL ENTERPRISES, L.L.C.

*International Infrastructure Finance*

FOR FURTHER INFORMATION  
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ARGENTA CAPITAL ENTERPRISES  
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## New Infrastructure Funding Source – Mexican Capital Markets

### INFRASTRUCTURE NEED

Mexico faces staggering investment needs in infrastructure, especially if the goals engendered by the North American Free Trade Agreement are to be fulfilled. It is estimated that at the national level alone, the Mexican federal government needs to invest \$34 billion between now and the year 2015 for large-scale national and high profile infrastructure projects. When taking state and municipal infrastructure needs into account, this investment need would be well over \$100 billion.

Mexico has experienced rapid urban growth that has led to an increase in the requirements for basic urban services. Demographic studies indicate that by the year 2000 the population of Mexico will reach 100 million with more than 60% concentrated in urban areas. The pressure on state and municipal governments to provide basic services will grow as the demands made on them grow, especially as the developing policy of decentralization gives local government more responsibility and accountability. However, 15 million Mexican households are currently without running water and 30 million lack access to sewer systems. A recent U.S. Department of Commerce Office of Technology Exports study estimates that, along the border alone, \$4 billion is needed to complete and expand water and other environmental projects while an additional \$3 billion is required for new wastewater collection and treatment systems. Every day the country's cities generate 90,000 tons of solid waste, of which, only 62,000 tons are collected and 15,000 tons are deposited in recognized landfills. There is 8 million tons of industrial waste generated each year, and only 20% are treated in permitted facilities. The excess is illegally deposited in rivers, sewers and clandestine sites. Other basic municipal services, such as local roads and bridges, low income housing, schools, public markets and street lighting also need improvements as cities grow.

### TRADITIONAL FUNDING SOURCES

Historically, most municipal water districts in Mexico (as well as in the U.S. during the 1970's) built their water and wastewater systems using federal aid or subsidized credit. In Mexico, from 1986 to 1991, subsidized loans and grants provided 85% of the capital investment for local water districts, or *organismos de agua*. Local water authorities, through user fees, provided only 8% of this investment, while the remainder came from Mexican and multilateral development bank credits.

Burdened by debt, the governments of Latin America, including Mexico, have aggressively turned away from official borrowing, and have moved toward privatization or concession contracts to finance infrastructure. The general belief is that the private sector can provide a more efficient model for infrastructure development. In practice, however, private sector financing has fallen short of expectations.

Many concessions were awarded to private developers to build, own and operate wastewater treatment plants. Most of these projects failed because the ultimate payment source for the concession was the user fees collected at the local level. Only a few of the more than 30 concessions granted by local *organismos* in the past eighteen months have obtained financing.

Since concessions depend on payments from the municipality, their ability to attract debt is largely a function of the creditworthiness of the local government entity and their ability to access a well-informed investor base. However, municipalities and water districts are often not creditworthy due to historical budget deficits, their poor track record in collecting user fees, and outdated water systems that cause as much as 70% water leakage.



Another problem endemic to Mexico is the unavailability of long-term funds. Potable water plants, water distribution networks, and wastewater treatment plants need to be financed on a long-term basis. Traditional funding sources for Mexican projects limit the amortization of the construction and development costs from five to seven years. This places an undue financial burden on the current users of these public facilities whose assets have a useful life of 30 years. More recent funding sources have come from international institutional investors, yet this raises questions concerning currency and convertibility risks, as well as constitutional restrictions to foreign exchange exposure.

In the U.S., local governments access trillions of dollars for their projects through the issuance of tax-exempt municipal bonds. But for Mexico, the basic question remains; where will the billions of dollars for basic municipal infrastructure come from?

#### **FUNDING SOLUTION**

The obvious solution is to identify investors with long-term liabilities that require sound long-term assets. These investors should be well informed of the workings of the local institution and have confidence in their long-term viability. Such an investor base now exists in Mexico.

On July 1, 1997, the Mexican social security system was privatized. In a private pension plan a worker's contributions are held in an individual account which is invested by a private fund administrator. In Mexico these funds are the *Afores* (covering retirement pensions) or the insurance company annuity funds (covering workmen's compensation and death or disability payments). Workers will be able to select membership in various competing *Afores*, or insurance company annuity funds, and the fund managers will be looking to invest these contributions in investment instruments bearing the best rates of returns for its members.

This has immediate implications for infrastructure finance in Mexico. Within one year of operation, the *Afores* will have over \$4 billion under management that they must invest, with the annuity funds having an additional portfolio of \$1 billion. These funds will increase by over \$5 billion each year as new workers enter the system. By the year 2005, the Mexican portfolio managers of the new pension and annuity funds will have over \$40 billion to invest in Mexico. Private portfolio managers, not government bureaucrats, will invest this internal savings pool. One of the regulatory conditions for investment is that the securities undergo an independent credit rating. Therefore, there will be a growing appetite for investment-grade, long-term securities.

#### **ACCESSING THE DOMESTIC CAPITAL MARKET**

How does this effect water authorities? Water authorities have a readily identifiable source of income: the cash flows generated by the collection of water and sewer fees from customers in their region, both residential and industrial. These agencies can be evaluated by lenders just like any business enterprise, and their ability to incur debt can be quantified. Those water authorities that can demonstrate borrowing capacity should be able to borrow from Mexican institutional investors just like any public or private entity anywhere in the world.

Water agencies are the best candidates for accessing this newly developing capital market. Investors feel comfortable with municipal water project debt, due to water being essential. Private companies come and go, but municipal governments will always exist, and they will always have to provide basic services like water to their populations. What is essential is to develop and portray the water authority as a strong and viable institution. Emphasis should be placed on identifying the current state of affairs, and putting forth a plan to strengthen the institution.

A major effort of institutional strengthening of water districts is underway. World Bank technical assistance funds, funneled through the National Water Commission and the federal development bank, Banobras, are bringing state-of-the-art planning and engineering to local governments. Engineers and administrators are increasingly able to design and operate modern facilities. The new Federal Water Law provides economic incentives for rapidly upgrading water and wastewater systems. By the year 2000, all municipalities with populations over 50,000 must meet strict wastewater discharge standards or face discharge fees calculated to be twice the cost of building and operating a wastewater treatment plant.

An advantage to accessing the domestic capital markets is accountability to institutional investors. This accountability encourages an integrated planning and development approach to water system management and facilities construction. It is not advisable to develop discreet, stand-alone projects like wastewater treatment plants without looking at the overall needs and capacity of the entire water district. Wastewater treatment by itself does not generate revenues; water sales generate revenues. The plant must be developed within the context of also providing potable water distribution, its ability to cut water leakage and other wastes within the network, and the capacity to collect water fees on a rational, metered basis. All functions of a water authority should act as a cohesive enterprise.

Investors know that a systematic management approach will provide the basis for the water district to be able to repay its debts over a long-term period. It is prudent to invest a few million dollars to address leaks and to computerize the billing and collection of fees, before spending \$30 million on a wastewater treatment plant. A small investment could immediately and significantly increase revenues, and thereby provide the foundation to support debt for the larger projects.

In the context of a Mexican water authority, the systematic analysis of the institution will take the following criteria under review:

- 1) Annual water loss, and a cost/benefit analysis of its repair.
- 2) Annual operations running at a surplus.
- 3) Analysis of the rate setting policies in real terms.
- 4) Historical review of fee collection and the remedies for non-collection.
- 5) Political autonomy of the water authority.
- 6) Analysis of industrial/residential customer base, with a projection of regional growth.
- 7) Cohesive long-term capital investment plan.
- 8) Independent credit review.

These key points are important because their implementation demonstrates a sound institution with the prospects of healthy future cash flows.

What is the status of financing for water systems in Mexico? As recently as a year ago, it was thought that the only financing resource available were the international capital markets. While this remains a capital source, something new has occurred in Mexico. There is now a giant pool of money being created that could be used to purchase rated water district bonds. Pension privatization creates a new domestic peso capital market for long-term infrastructure debt that never existed in Mexico before. Institutional strengthening and creditworthiness immediately take on a new urgency. Water authorities can now connect improvements and sound credit ratings with a growing domestic capital pool to finance their expansion and wastewater treatment.

The Mexican cities of Leon or Monterrey have existed for centuries and will exist for centuries more. They have and will continue to provide water services. Investors know that one way or another, they will always find the resources to bring water to their citizens. Therefore, if they can show they are financially sound, they represent a good bet for private investment. It is an investment in Mexico.





# Argenta Capital Enterprises, L.L.C.

*INTERNATIONAL INFRASTRUCTURE FINANCE*

## Corporate Profile

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MEXICO CITY

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## ARGENTA CAPITAL ENTERPRISES LIST OF SERVICES

Argenta Capital Enterprises provides financial services to US and Mexican local, federal and corporate clients involved in infrastructure development. Argenta's principals have over eight years of experience, development and contractual work in the public finance market in the United States and Mexico.

Argenta specializes in projects ranging from \$1 million to \$75 million in the areas of water/wastewater, energy, industrial development and housing. Argenta's services are organized into the following special groups:

### PROJECT FINANCE GROUP

Arranges debt and equity financing for infrastructure development projects.

- Structuring and placement of long term dollar and peso denominated debt
- Refinancing of tax-exempt or taxable municipal debt
- Project finance for government concession projects
- Procurement of project equity financing
- Project finance for state and municipal water, wastewater treatment, energy and housing projects

### FINANCIAL ADVISORY SERVICES GROUP

Advises municipal clients on institutional strengthening and public policy matters, and provides advisory services to private companies with infrastructure related projects.

- Analysis of municipal and state debt capacity
- Assistance in restructuring of current debt
- Assistance with credit rating process
- Institutional strengthening studies, and development of implementation programs
- Government policy studies
- Assistance in negotiating optimal terms for concession projects

### MERGERS & ACQUISITIONS GROUP

Assists private Mexican and international infrastructure companies in obtaining equity funds in order to expand their business base.

- Joint venture arrangements with domestic and international partners
- Assistance with technology transfer agreements
- Identification of corporate acquisition targets
- Equity placement for corporate growth
- Business plan development

## RECENT PROJECTS IN MEXICO

The following is a selection of recent Argenta projects performed in Mexico:

- **Bi-national Project Finance Program**

Performed preliminary legal and financial research on the ability of Mexican local and state agencies to access the US tax-exempt municipal market for bi-national projects. The impact to this innovative program is significant, in that qualified projects are able to access the multi-trillion dollar US municipal capital market. The US municipal market offers 30 year financing at fixed interest rates currently ranging from 5% to 8%.

- **Mexican Water Authority Credit Rating**

Assisted CESPT, the water authority of Tijuana, Baja California, in obtaining a shadow credit rating from Standard & Poor's. The project included an extensive analysis of the organizational structure of the water authority, including state and federal legal issues, rate setting policies, billing and collection issues, and a review of the water authority's five year capital program. This credit rating can assist CESPT in obtaining 20-year, peso-based financing, at reasonable fixed interest rates to refinance existing debt or for future projects.

- **Pemex Off-Balance Sheet Water Treatment Project**

Acted as structuring agent for a wastewater treatment facility bid out as a Build, Own, Operate, and Transfer project to be integrated into a Pemex refinery. The project involved a 12-year, dollar linked financing, with the only collateral being a service rendering agreement from Pemex Refinacion. The transaction obtained an investment grade credit rating of BBB- from Standard & Poor's.

- **Banobras Long Term Financing Program**

Working with the federal development bank, Banobras, to develop 20-year, peso based financing mechanisms for state and local government infrastructure projects. The work entails evaluating Mexican institutional investor needs, determining the regulatory environment, and developing the structural framework to arrive at a sound credit, and marketable debt instrument.

- **CNA 1997 Water Law Research**

Completed a study of the impact on the Mexican water industry due to the changes of the federal water regulations implemented in July of 1997. The study involved several meetings with various departments of the federal water commission, CNA, to analyze the breakdown of the fines, surcharges, and incentives for water discharge according to region and water receptor mass.

## PREVIOUS UNDERWRITTEN TRANSACTIONS

CLIENT	PROJECT	AMOUNT
San Francisco Redevelopment Agency	Residential Mortgage Revenue Bonds-Opera Plaza	40,000,000
Retama Development Corporation	Retama Racetrack Senior Refunding Bonds	7,000,000
Retama Development Corporation	Retama Racetrack Subordinate Refunding Bonds	82,000,000
Ontario Redevelopment Agency	Taxable Collateralized Mortgage Obligation Bonds	3,520,000
City of Rancho Cucamonga	Mortgage Asset Liquidation	6,467,000
City of Palmdale	Taxable Collateralized Mortgage Obligation Bonds	5,976,000
Oceanside-San Buenaventura Housing Agency	Taxable Collateralized Mortgage Obligation Bonds	4,436,000
Oceanside-San Buenaventura Housing Agency	Subordinate Taxable Collateralized Mortgage Obligation Bonds	509,000
Pico Rivera Redevelopment Agency	Mortgage Asset Liquidation	43,400,000
Paramount Redevelopment Agency	Mortgage Asset Liquidation	26,260,000
City of Palmdale	Mortgage Asset Liquidation	19,209,000
City of Palmdale	Mortgage Asset Liquidation	10,680,00
City of Palmdale	Mortgage Asset Liquidation	10,000,000
New Castle, Delaware	Mortgage Asset Liquidation	10,000,000
City of Palmdale	Mortgage Asset Liquidation	3,088,000
City of Palmdale	Taxable Special Obligation Bonds	51,000,000
Cities of Aurora & Naperville, Illinois	FNMA Collateralized Mortgage Obligation Bonds	27,500,000
Lancaster-Grand Terrace- Housing Authority	Taxable Special Obligation Bonds	9,550,000
City of Cypress	Taxable FNMA Mortgage-backed Securities Program	5,500,000
City of Pomona	Mortgage Asset Liquidation	58,395,000
City of Pomona	Mortgage Asset Liquidation	30,000,000
City of Pomona	Mortgage Asset Liquidation	24,505,000
City of San Bernadino	GNMA Mortgage Asset Liquidation Program	18,840,000
City of Cypress	Mortgage Revenue Refunding Bonds	7,595,000
City of Cypress	Subordinate Mortgage revenue Refunding Bonds	810,000
San Marcus Public Facilities Authority	Tax Allocation refunding Bonds-Project Area 1,2 and 3	47,425,000
Lancaster-Grand Terrace Huntington Park	Mortgage Revenue Refunding Bonds	9,385,000
Lancaster-Grand Terrace Huntington Park	Subordinate Mortgage Revenue Refunding Bond	1,900,000
City of Palmdale	Interest Only Certificates	1,300,000
City of Palmdale	Mortgage Revenue refunding Bonds	46,625,000
City of Palmdale	Residential Mortgage Revenue Refunding Bonds	9,260,000
City of Colton	Taxable FNMA Mortgage-Backed Securities Program	6,475,000
City of Montclair	Taxable FNMA Mortgage-Backed Securities Program	4,400,000
City and County of San Francisco	Mortgage Revenue Bonds Rights Acquisition	83,085,000
City of San Bernadino	Taxable Collateralized Mortgage Refunding Bonds	38,034,745
Housing Authority of Brevard County, FL	Mortgage Revenue Bonds, Rights Acquisition	90,010,000
Tulsa County Housing Authority, OK.	Collateralized Mortgage Refunding Bonds	57,798,085
City of Juneau, Alaska	Collateralized Mortgage Refunding Bonds	29,550,000
New Castle County, Delaware	Mortgage RevenueBonds-Rights Acquisition	125,000,000
New Castle County, Delaware	Mortgage RevenueBonds-Rights Acquisition	90,000,000
City of Waukegan, IL	Taxable Collateralized Mortgage Refunding Bonds	13,985,000
City of Ontario	Variable Rate Multifamily Revenue Demand Bonds	7,000,000
City of Oceanside	Multifamily Housing Revenue Refunding Bonds	43,240,000
Walnut Valley School District	Refunding General Obligation Bonds	52,000,000
City of Cypress	Special Refunding Tax Bonds-Sorrento Homes	14,425,000
San Marcus, Public Facilities Authority	Public Improvement Revenue Bonds	8,315,000
Jurupa Community Services District	Special Tax Bonds-Mira Loma Area	12,605,000
San Marcus Public Facilities Authority	Community Facilites District No. 88	61,700,000
Rialto Redevelopment Agency	Tax Allocation Bonds-Auga Mansa	5,575,000
Rialto Redevelopment Agency	Tax Allocation Bonds-Series A	13,100,000
Rialto Redevelopment Agency	Tax Allocation Bonds-Series B	2,920,000
City of Pomona	GNMA & FHLMC Mortgage-Backed Securities	24,505,000
Village of Addison, Cities of Alton, Granite City and Pokin, IL.	Mortgage Asset Liquidation	35,924,535
<b>TOTAL</b>		<b>1,431,102,365</b>



